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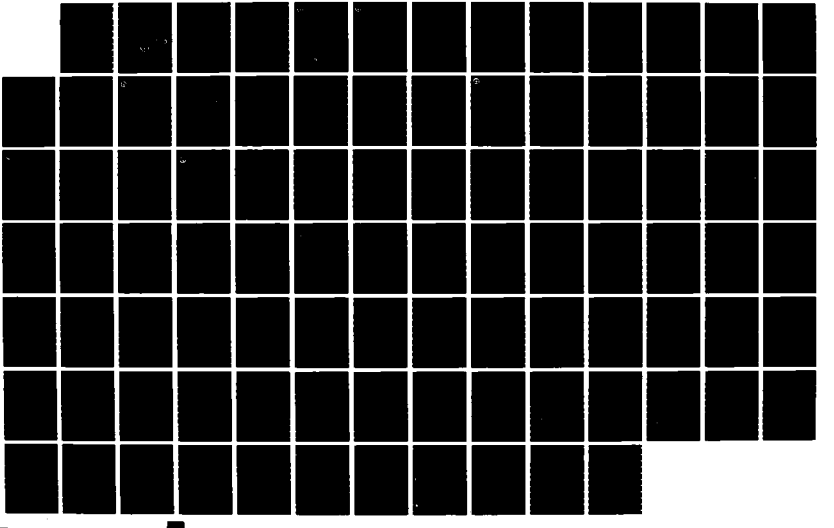

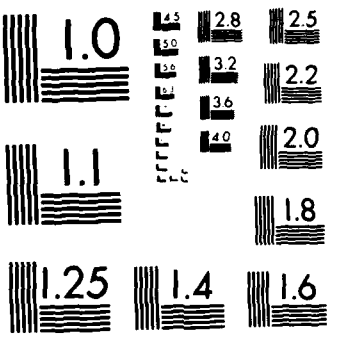

MICROCOPY RESOLUTION TEST CHART

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AD-A171 578

Report
of the
Defense Science Board

DEFENSE NUCLEAR AGENCY
MANAGEMENT TASK FORCE

June 1986

Office of the Under Secretary of Defense for Research and Engineering
Washington, D.C. 20301

Unclassified

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Report

of the

Defense Science Board

DEFENSE NUCLEAR AGENCY

MANAGEMENT TASK FORCE

June 1986

OFFICE OF THE SECRETARY OF DEFENSE
WASHINGTON, D.C. 20301-3140

DEFENSE SCIENCE
BOARD

18 JUN 1986

MEMORANDUM FOR UNDER SECRETARY OF DEFENSE FOR RESEARCH AND ENGINEERING

SUBJECT: Final Report on the Defense Science Board Task Force on Defense Nuclear Agency Management

The final report of the DSB Task Force on DNA Management is attached.

The Task Force was chartered to review present management authority and responsibilities, organizational structure, and staffing of the Defense Nuclear Agency.

The Task Force makes several recommendations aimed at strengthening current DNA effectiveness. These include clarifying responsibilities of key individuals, sharpening reporting channels and oversight responsibilities, and modifying relevant DNA directives to reflect these changes. On the issue of whether the DNA Director should be military or civilian, however, the panel was divided. Cases for both are presented in the report.

It is important to observe that DNA is, and has been, operating effectively across a wide range of national nuclear weapons, operational and research missions. I recommend that you read the report and implement the recommendations.

Charles A. Fowler

Charles A. Fowler
Chairman

Attachments

OFFICE OF THE SECRETARY OF DEFENSE
WASHINGTON, D.C. 20301-3140

DEFENSE SCIENCE
BOARD

4 JUN 1986

MEMORANDUM FOR THE CHAIRMAN, DEFENSE SCIENCE BOARD

SUBJECT: Report of the Task Force on Defense Nuclear Agency Management

The final report of the DSB Task Force on DNA Management is attached.

Conducted at the request of the Under Secretary of Defense (Research and Engineering), the Task Force was chartered to review present management authority and responsibilities, organizational structure, and staffing of the Defense Nuclear Agency. The Task Force was not asked to concern itself with the technology base program.

Although our investigation led to several organizational recommendations, it is important to note that DNA has been and is operating effectively across a wide range of assigned missions. The changes we have suggested are aimed at strengthening that effectiveness. The panel was split on the issue of whether the Director should be a military officer or civilian; arguments for both are detailed in the report.

I have been fortunate to work with such a capable and qualified panel; my thanks to them and to DNA for its dedicated support.

Gerald W. Johnson

GERALD W. JOHNSON, Chairman
Task Force on DNA Management

Attachments

TABLE OF CONTENTS

REPORT OF THE AD HOC DSB TASK FORCE ON DEFENSE NUCLEAR AGENCY MANAGEMENT 30 APRIL 1986

At the request of Under Secretary of Defense (Research and Engineering), Dr. Donald A. Hicks, the Defense Science Board established an ad hoc Task Force on the Defense Nuclear Agency (DNA) Management. The charter for the Task Force directs a review of the present management authority and responsibilities, organizational structure and staffing of the Defense Nuclear Agency (DNA) to determine whether they are appropriate for fulfilling the Agency's missions and functions in support of the Department of Defense and other U.S. Government agencies. The Task Force was not asked to concern itself with the technology base program since that had been covered by previous DSB study. The charter is attached as Appendix A. The Task Force membership is listed in Appendix B.

To develop an under tanding of the organization of DNA, its mission, and relationships to other elements of the government, three separate meetings were convened. The first session was held in the DNA Headquarters in Washington on 18-19 December 1985 at which briefings were presented describing DNA operations, technical program management, personnel policies, and administration including budgeting and contracting. The second meeting at the Field Command in Albuquerque on 8-9 January 1986 was devoted primarily to the military programs and the underground nuclear effects test program. At the final meeting in the Pentagon on 11-12 February 1986 the Military Services and other users of DNA services including the staff of the Under Secretary (RE) described their interactions with the DNA programs.

In accordance with its charter, the task force reviewed the range of operations, responsibilities, and structure of DNA. Particular attention was directed at the Agency's historic and present mode of operation, the thrust and relative emphasis of the programs; the responsibilities of key individuals and the directives under which they are working; its relationships to the Office of the Under Secretary of Defense (Research and Engineering) and the Joint Chiefs of Staff; the manner in which various customers, such as the military services, other government agencies, and offices of the Department of Defense are serviced; and some of the contractual and administrative practices of the Agency. With this information as background, the task force formed a number of impressions and reached conclusions on a number of steps which it believes would clarify the responsibilities of key individuals and the relationships of DNA to the Under Secretary's office, which would enhance the effectiveness of DNA's operations in executing its assigned functions.

At the outset, it is important to observe that DNA is and has been operating effectively in carrying out its currently assigned responsibilities in spite of ambiguities in its charter, responsibilities, and procedures. The technical program involves a wide range of disciplines from the modeling of nuclear weapons effects to laboratory programs and finally to underground nuclear effects testing. This effort requires careful planning, a strong technical team and associated contractors, and coordination with the military services and other government agencies. The organization is responsive to the changing needs and directions of major defense programs including the current Strategic Defense Initiative. To be in a position to meet all of these challenges, care must be taken to assure an effective continuing long term base research program. The task force considers that all of these areas currently are being competently handled by DNA. The military/operational program is likewise being handled effectively; however, the areas of nuclear weapons security and safety should be emphasized and perhaps expanded -- if DoD is to bring to bear on these important issues the range and depth of resources that are resident in DNA.

In our review, however, we have identified a number of changes which we believe are essential to strengthening DNA. Specifically, it will involve clarifying responsibilities of key individuals, sharpening reporting channels and oversight responsibilities, and modifying the directives to DNA to reflect the needed changes from the recent mode of operations.

Basically, the program of DNA splits into two areas. The prime thrust of the DNA effort is the definition and management of the national nuclear weapons effects programs. Perhaps equally important are the tasks associated with the oversight of nuclear weapons operations. Thus, the responsibilities include a technical research area and a military/operational area. While they are distinct, since they are both nuclear weapons related, having them in the same organization is beneficial to the execution of both. Let's now discuss each area in more detail.

As pointed out, the central thrust of the DNA effort is the nuclear weapons effects program. This program is technical in nature and is directed at developing the understanding of nuclear weapons effects to permit the U.S. to design and deploy military systems which could operate in a variety of postulated nuclear weapons explosion environments for both offensive and defensive purposes. To accomplish this mission, DNA must be a repository of all information collected to date and to provide it to the users in a readily accessible form for application to their needs. As new defense systems enter or are anticipated to enter the inventory, many new questions can be expected to arise concerning their operability and survivability under

possible battle conditions. The technical program must be so designed as to best be positioned to deal with such questions through its library, its continuing research program, its modeling and simulation activities, and its underground nuclear test program.

The key to success to the technical program depends critically on the technical leadership. In our view, this position is crucial to a successful technical program. The "technical director" must be fully responsible for all aspects of the technical program. Obviously, he must be technically qualified and to provide for continuity he should be available at least for five years. In our view, these criteria can best be met by a civilian.

The technical director should be responsible for the development and management of the technical program, and have commensurate authority. This clearly includes selection and assignment of all individuals -- civilian and military -- reporting to him, and those aspects of administrative, budgeting, and contracting activity necessary for the effective discharge of his responsibilities. A current five year plan with supporting rationale is essential for good management and should be in a format which permits critical review in and out of DNA. The Task Force was surprised to learn that such planning was not presently included in DNA operations.

The current structure of the office of the DDST ("Technical Director") involves a staff of four senior civilians -- each governing specified technical areas. It is strongly recommended these positions be made line responsibilities since this will elevate the stature of the positions and make it easier for the incumbents to exercise their responsibilities. In addition, such a move should make the positions more attractive for qualified individuals.

The operational functions of DNA are an important part of DNA's activities. Like the technical program, these responsibilities and their emphasis have changed over the years. Currently an activity requiring emphasis and perhaps enhancement is the security and safety of nuclear weapons in view of the rising terrorist threat. Other military/operational responsibilities include managing the base of the nuclear weapons stockpile, conducting inspections of nuclear weapons units, conducting arms control analyses, and fielding nuclear accident exercises.

The operational functions are most appropriately managed by two flag or general officers, one at headquarters and one at Field Command, as currently assigned. These officers together with their military subordinates, in addition to managing the military/operational activities of the agency, also perform the

important function of maintaining liaison with the military services, including the unified and specified commands, to encourage their participation in and support of DNA's programs across the board.

Because of these considerations, the task force concludes the headquarters of DNA should include a senior civilian director of the technical program and a flag or general officer to be responsible for the operational functions of the agency. Thus, we envision a structure involving these two positions at the top. Some members of the task force felt strongly that the senior person should be the civilian -- others forcibly defended the opposite conclusion. Whether the overall director should be the civilian or the officer may depend more strongly on what the OSD and JCS decide to do on oversight than what our considerations have been.

Since the panel was divided on whether the top position should be military or civilian it was decided to include here brief cases for each.

Case for a military director.

The management of the military aspects of DNA requires a strong continuous interaction with many military agencies and commands and a thorough knowledge of the military command structure and its way of doing business. A critical area that demands major emphasis by DNA is to assure safety and security of nuclear weapons through their overview of the Services in the worldwide deployment of nuclear weapons systems and forces. To properly deal with these problems, as well as those responsibilities previously described, requires the independence of DNA managed by a carefully selected senior flag or general officer. This has been a demonstrably effective arrangement over most of DNA's history. As a final point it has become increasingly difficult to attract junior officers to a career in nuclear weapons effects because of lack of a sufficient number of senior billets, retaining the command of DNA at the three star level could provide such a potential opportunity.

Case for a civilian director.

The hard core of DNA activities is the quality of its research and development program. The key to success in designing, managing, and staffing such a program is to attract scientifically competent and aggressive individuals for the technical direction of the organization. Therefore the top job must be made as significant as possible in scientific challenge accompanied by requisite responsibilities and authorities. Such leadership will serve to recruit and stimulate key subordinates. An important ingredient to the director's task is his continuity of tenure over several years to develop

stability of program and personnel policy. All of these factors argue persuasively that the director of DNA should now be a civilian which would perpetuate the desired conditions.

Practically all of the military functions are carried out at the Field Command in Albuquerque. These activities were judged to be well managed and competently staffed. The commander of Field Command should continue to report to the senior military officer at Headquarters.

The test group located with Field Command should report directly to the technical director or one of his designated subordinates in Washington. This unit could continue as a tenant of the Field Command.

Presently the practice is for the Under Secretary of Defense (R&E) to select the DDST (technical director) and for the Secretary of Defense to appoint the Director upon recommendation of the JCS. Secretary of Defense Harold Brown placed DNA under "the direction, authority and control of the Under Secretary of Defense for Research and Engineering. By delegation, DNA shall be supervised by the Chairman of the Joint Chiefs of Staff (for the Joint Chiefs of Staff) for military aspects of DNA activities, including: (a) composition of the nuclear stockpile; (b) allocation and deployment of nuclear weapons; (c) military and support of inspections; and (e) requirements for technical publications". The person responsible for the technical program should report directly to the Under Secretary (R&E) as a line responsibility. The present directives and associated memoranda (Appendix C) should be brought up to date including changes recommended here as they may be approved by responsible authority. In particular we recommend that the DoD directive which pertains to DNA be rewritten from scratch. An example of such a rewrite is attached as an illustration (Appendix D). Note, however, that it does suggest eliminating ATSD(AE) as an oversight function with regard to DNA. This seems appropriate since both ATSD(AE) and DNA report to the USD(RE). Note also that the suggested rewrite makes explicit DNA responsibility in weapon system and force safety, security, and control matters. We believe that USD(RE) and JCS must make a decision. The essence of which is whether or not it is desirable to retain DNA expertise and independence in matters affecting the national risk of worldwide deployment of nuclear weapons systems and forces.

In the past, the several offices of the Under Secretary have tasked DNA for special support. Also, the ATSD(AE) has tasked DNA on occasion. To provide for a single coordination point within the Under Secretary's office, a coordinating committee chaired by the ATSD(AE) was formed to work with DNA and to review the five year plan. This function in our view is

not necessary and in fact, confuses the reporting chain. If coordination is required it could be assigned to an appropriate member of the Under Secretary's staff.

The subject of contracting was extensively discussed. We offer a comment on competitive bidding on R&D contracts. We do so because DNA is a major and perhaps even the principal sufferer under the recent tightening of sole-source contractual efforts. We observe that "competition" may actually exclude some of DNA's historic and competent performers -- indeed performers who possess much of the lore and expertise in the nuclear effects field. We learned that Congress intended to exclude what to them was "basic" research from the competitive fold...and that DoD's own decision to adapt that decision to 6.1 activities (only) was unilateral. It appears that some 6.2 and 6.3a functions could as well be excluded, and still satisfy the sense of Congress. We recommend that this understanding be confirmed with the Congress, and that necessary relief be requested to retain DNA the flexible tools it has historically employed so effectively.

In the event that this relief from existing contracting rules is denied, then a secondary, but still important, consequence is that DNA will be faced with the necessity of finding an alternative to the historic practice of using its technical base contractors in the peer review process. One candidate for such a review role would be the DNA SAGE, with some modifications in its current membership and operating procedures. For example, we would suggest that the SAGE form working task forces in the technical fields of current interest, with appropriate expert participants from both SAGE and non-SAGE members to provide oversight of the planning and execution of the tech base programs. Whether or not SAGE falls heir to the DNA peer review role, however we believe it would be useful to make some selective changes in its membership to reflect the full spectrum of DNA's current scientific and technical mission assignments.

Comments and conclusions:

1. DNA is doing a commendable job.

2. Top command should consist of a technical director and a flag or general officer -- either could be the Director. The top position should be retained at the three star rank or the civilian equivalent as appropriate for the incumbent. The task force was divided on which should be senior, military or civilian, but when the director is military, given the nature of the agency's work, it is essential he be fully qualified in terms of background and experience.

3. DNA continues to report to the Under Secretary of Defense (R&E) for nuclear weapons effects RDT&E; to the Chairman, JCS for military and operational matters.

4. As in the past the Commander of the Field Command (a flag or general officer) reports to the headquarters flag or general officer.

5. The Test Directorate at Field Command should report directly to the Technical Director, or one of his subordinates as part of his organization.

6. The OSD interpretation of the law in regard to competitive bidding for R&D contracts should be changed. Rather than limiting sole-source contracting to 6.1, it should be extended to include 6.2 and 6.3a.

7. Selective changes should be make to the membership of the SAGE to cover the full spectrum of DNA's current scientific and technical mission assignments.

8. The present charter must be rewritten to conform with existing directives and associated memoranda, including decisions made relative to this report. Such a rewrite should reflect the role, mission, responsibilities, and organization of DNA.

APPENDIX A

TERMS OF REFERENCE

THE UNDER SECRETARY OF DEFENSE

WASHINGTON, DC 20301-3010

RESEARCH AND ENGINEERING

12 DEC 1985

MEMORANDUM FOR THE CHAIRMAN, DEFENSE SCIENCE BOARD

SUBJECT: DSB Task Force on Defense Nuclear Agency Management

You are requested to review the present management authority and responsibilities, organizational structure and staffing of the Defense Nuclear Agency (DNA) to determine whether they are appropriate for fulfilling the Agency's missions and functions in support of the Department of Defense and other U.S. Government Agencies. Your review should take into account the relationships between DNA and the Offices of the Joint Chiefs of Staff, the Commanders in Chief of the Unified and Specified Commands, the Military Services and Defense and other Government Agencies (such as the Department of Energy) as well as the Office of the Secretary of Defense.

This review should focus on the ability of the agency management structure, organization and staffing to perform its assigned missions in a timely and effective manner. When reviewing management of the research program, the Task Force should examine Agency ability to establish long term requirements and be responsive to short term needs, and the mechanism for identifying and prioritizing these requirements and needs.

You are also requested to examine the structure, purpose and effectiveness of the DNA Scientific Advisory Committee on Effects (SAGE) in providing outside advice to the Director, DNA.

Your study need not concern itself with the technology base program since a previous DSB study, Review of the Defense Nuclear Agency Technology Base Program (dated 23 April 1982), provided substantive information concerning this area of DNA responsibility. The final report should include, if appropriate, recommendations and suggested modifications that could be made to improve the responsiveness and effectiveness of the Defense Nuclear Agency.

The subject Task Force is tentatively scheduled to meet once in December, January and February and complete its task by 28 February 1986. A draft report should be provided to me by 1 March 1986.

This Task Force is sponsored by the USDRE. Dr. Gerald W. Johnson has agreed to serve as the Chairman, Col Houston T. Hawkins, OATSD(AE), has been appointed as the Executive Secretary and CDR Michael H. Kaczmarek, USN, will be the DSB Secretariat representative. It is not anticipated that your inquiry will need to go into any "particular matters" within the meaning of Section 208 of Title 18, United States Code.

DONALD A. HICKS

APPENDIX B

TASK FORCE MEMBERSHIP

AD HOC DSB PANEL FOR DNA MANAGEMENT REVIEW

Gerald W. Johnson, Chairman
TRW

Robert Fossum
Southern Methodist University

Richard Godwin
Bechtel Civil & Mineral, Inc.

Jack Howard
Private Consultant

Harold Lewis
University of California

Robert Monroe
Bechtel Inc.

Robert Peurifoy
Sandia National Laboratories

Robert Wertheim
Lockheed Corporation

Seymour Zeiberg
Martin Marietta Aerospace

Col. Houston T. Hawkins, USAF
(Executive Secretary)

Cdr. Michael H. Kaczmarek
(DSB Staff Representative)

APPENDIX C

APPENDIX C(1)

DoD Directive 5148.2 dtd 4 Feb 86

Department of Defense
DIRECTIVE

February 4, 1986
NUMBER 5148.2

ASD(C)

SUBJECT: Assistant to the Secretary of Defense (Atomic Energy)

References: (a) DoD Directive 5148.2, "Assistant to the Secretary of Defense (Atomic Energy)," August 10, 1978 (hereby cancelled)
(b) DoD Directive 5148.1, "Military Liaison Committee to the Department of Energy," January 24, 1979
(c) DoD 5025.1-M, "DoD Directives System Procedures," April 1981, authorized by DoD Directive 5025.1, October 16, 1980
(d) DoD Directive 5000.19, "Policies for the Management and Control of Information Requirements," March 12, 1976

A. REISSUANCE AND PURPOSE

This Directive:

1. Reissues reference (a) to redefine the responsibilities and functions of the Assistant to the Secretary of Defense (Atomic Energy).

2. Pursuant to the authority vested in the Secretary of Defense under the provisions of title 10, United States Code, the position of Assistant to the Secretary of Defense (Atomic Energy) (hereinafter "the ATSD(AE)"), is hereby established with responsibilities, functions and authorities as prescribed herein. The Chairman of the Military Liaison Committee to the Department of Energy will serve as the ATSD(AE) without additional compensation.

B. RESPONSIBILITIES AND FUNCTIONS

The ATSD(AE), as the principal staff assistant for Department of Defense atomic energy matters, is responsible to the Secretary of Defense, through the Under Secretary of Defense for Research and Engineering, for matters associated with: (1) nuclear and chemical weapons safety, security, and survivability; (2) nuclear survivability of strategic and theater nuclear forces and associated systems; (3) chemical and biological survivability of all DoD materiel; and (4) planning and implementation of modernization and upgrading of the nuclear and chemical weapons stockpile. Additionally, the ATSD(AE) serves as the single OSD focal point with responsibility for integrated management of all chemical and biological defense and chemical stockpile destruction matters within DoD. The ATSD(AE) shall:

1. Develop policies, provide advice, make recommendations, and issue guidance on Defense atomic energy, chemical warfare and biological defense plans and programs.

2. Develop systems and standards for the administration and management of approved atomic energy, chemical warfare, and nuclear, biological, and chemical defense plans and programs.

3. Review and evaluate programs for carrying out approved policies and standards.

4. Promote coordination, cooperation, and mutual understanding on atomic energy, chemical warfare, and nuclear, biological, and chemical defense policies, plans, and programs within the Department of Defense, and between the DoD and other Federal agencies.

5. Participate in those DoD planning, programming and budgeting activities which relate to atomic energy, chemical warfare, and nuclear, biological, and chemical defense matters.

6. Develop policies and procedures for the transmission of information to the Senate and House Armed Services Committees, as required by the Atomic Energy Act of 1954, as amended, and coordinate such information with other officials and agencies as appropriate.

7. Approve the recommendations of the DoD Steering Committee on Chemical Warfare Matters, which is chaired by the Deputy ATSD(AE) Chemical Matters.

8. Serve as Chairperson of the Defense Nuclear Agency Coordinating Committee.

9. Serve on boards, committees, and other groups concerned with atomic energy, chemical warfare, and nuclear, biological, and chemical defense. Also, represent the Secretary of Defense on atomic energy, chemical warfare, and nuclear, biological, and chemical defense matters outside the Department of Defense.

10. Serve as an advisor to the Defense Systems Acquisition Review Council for review of systems that include nuclear components or warheads, and for systems required to operate in nuclear, chemical and/or biological environments.

11. Perform such other functions as the Secretary of Defense may assign.

C. RELATIONSHIPS

1. The ATSD(AE) shall serve under the direction, authority and control of the Under Secretary of Defense for Research and Engineering.

2. In the performance of assigned functions, the ATSD(AE) shall:

a. Coordinate and exchange information with other DoD organizations having collateral or related functions.

b. Use existing facilities and services, whenever practicable, to achieve maximum efficiency and economy.

c. Communicate with other Government agencies, representatives of the legislative branch, and members of the public, as appropriate, in carrying out assigned functions.

3. The Military Liaison Committee (reference (b)) shall advise the ATSD(AE) on such atomic energy matters as the latter deems appropriate and necessary.

4. The DoD Chemical Warfare Steering Committee shall advise the ATSD(AE) on such chemical warfare matters as the latter deems appropriate and necessary.

5. All DoD organizations shall coordinate all matters concerning the functions cited in section B with the ATSD(AE).

D. AUTHORITIES

The ATSD(AE) is hereby delegated authority to:

1. Issue DoD Instructions and one-time directive-type memoranda, consistent with DoD 5025.1-M (reference (c)), which carry out policies approved by the Secretary of Defense, in assigned fields of responsibility. Instructions to the Military Departments will be issued through the Secretaries of those Departments or their designees. Instructions to Unified and Specified Commands will be issued through the Joint Chiefs of Staff.

2. Obtain reports, information, advice, and assistance, consistent with DoD Directive 5000.19 (reference (d)), as deemed necessary.

3. Communicate directly with heads of DoD organizations, including the Secretaries of the Military Departments, the Joint Chiefs of Staff, the Commanders of the Unified and Specified Commands, and the Directors of Defense Agencies. Communications to the Commanders of the Unified and Specified Commands shall be coordinated with the Joint Chiefs of Staff.

E. STAFF

1. The ATSD(AE) shall be provided with a staff of military and civilian personnel.

2. The staff for atomic energy related matters shall be headed by a Deputy ATSD(AE) (Military Applications). This position normally will be occupied by a major general or equivalent, will be rotated among the three Military Departments, and will serve simultaneously as Executive Secretary of the Military Liaison Committee as prescribed by reference (b). The staff for chemical and biological related matters shall be headed by a Deputy ATSD(Atomic Energy) (Chemical Matters).

3. Military personnel shall be detailed to the staff in nearly equal numbers from each of the three Military Departments. They shall be acceptable to and serve under the direction and supervision of the ATSD(AE). Transfer or reassignment shall be effected, through the Office of the Secretary of Defense, only after the ATSD(AE) has been notified sufficiently in advance to ensure timely assignment and availability of suitable replacements.

4. Civilian personnel for the staff shall be provided by the Office of the Secretary of Defense.

F. EFFECTIVE DATE

This Directive is effective immediately.

William H. Taft, IV
Deputy Secretary of Defense

APPENDIX C(2)

SecDef Memo for Director, DNA
dtd 16 Apr 84

THE SECRETARY OF DEFENSE

WASHINGTON THE DISTRICT OF COLUMBIA

16 APR 1984

MEMORANDUM FOR DIRECTOR, DEFENSE NUCLEAR AGENCY

SUBJECT: Defense Nuclear Agency (DNA) Responsibilities

Historically the emphasis in DNA's RDT&E program has been on the technical aspects of nuclear weapon effects and system vulnerabilities. However, DNA's charter (DoD Directive 5105.31) also includes the responsibility to "perform technical analyses and studies for the Secretary.....of nuclear related problems." I want to reaffirm the intent of that direction, that a program of technical analyses and studies is a regular part of the DNA RDT&E program. These analyses and studies will usually be funded from DNA's R&D account, but may also be funded by a requesting office.

As we proceed with modernization of our nuclear forces, an increasing number of very difficult technical problems and issues, of great urgency, continue to arise. These technical problems relate to decisions on: the structure, size, and basing of nuclear forces; accurate identification and characterization of targets; the mix of nuclear and conventional weapons; means to improve force employment; arms control implications of possible force improvements; and many related matters. These problems are as critical to the design and operation of the nuclear force as are traditional concerns such as yield, CEP, weapons effects, or vulnerabilities. It is therefore important that DNA continue to plan, program and budget to meet these requirements. DNA will perform technical analyses and studies in such areas as:

- Studies of NATO and Soviet vulnerabilities to particular nuclear attacks, including non-nuclear attacks as a precursor to nuclear attack or as a technique to lower the nuclear threshold.

- Studies of alternate arms control restraints facing the U.S. and the Soviet Union and how they affect the US nuclear posture.

- Studies of technical and employment options for new nuclear weapons, including the relationship of advanced conventional munitions to these options.

- Studies of command and control improvements which may be needed to ensure reliable operation of nuclear forces in the future.

- Studies of the effect of technology on nuclear force structure, operations, and political-military constraints.

- Studies of tactics, doctrine and force postures that would enhance the survivability of nuclear forces.

- Studies to develop techniques for analyzing alternate nuclear operations and tactics.

APPENDIX C(3)

ASD(AE) Memo for SecDef dtd 10 Apr 84

OFFICE OF THE SECRETARY OF DEFENSE

WASHINGTON, D.C. 20301

16 APR 1984

MEMORANDUM FOR SECRETARY OF DEFENSE

THROUGH: UNDER SECRETARY OF DEFENSE FOR RESEARCH AND ENGINEERING

SUBJECT: Defense Nuclear Agency (DNA) Responsibilities--ACTION MEMORANDUM

DNA has historically provided very important support to the decision formulation process within OSD and the military services. DNA, because of its expertise concerning such matters as nuclear weapons effects and system vulnerabilities, is used in two ways: directly as a source of information and indirectly as a technical manager of contracted efforts. DNA's charter (DoDD 5105.31) does not reflect these two means of contributing to decisions as clearly as it might. Consequently, DNA has been criticized for engaging in efforts which are not properly part of its mission. We believe that future Congressional concern can be allayed by clarifying the intent of DNA's charter. The memorandum attached is needed to: (1) reemphasize that one of DNA's missions is to accomplish studies supportive of OSD and the services; (2) assure that the requirements of all concerned are fulfilled without unnecessary duplication; and (3) recognize that DNA's continuation as a focal point in this area is consistent with its charter.

RECOMMENDATION: That you sign the attached memorandum to DNA.

Attachment
as stated

RICHARD L. WAGNER, JR.
Assistant to the Secretary
of Defense (Atomic Energy)

Coordination:
DNA
Dir, Net Assessment See next under
USD(P) See next under

59763

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APPENDIX C(4)

DoD Instruction 4245.4 dtd 2 Sep 83

September 2, 1983
NUMBER 4245.4

Department of Defense Instruction

USDR&E

SUBJECT: Acquisition of Nuclear-Survivable Systems

References: (a) DoD Directive 5000.1, "Major System Acquisitions," March 29, 1982
(b) DoD Instruction 5000.2, "Major System Acquisition Procedures," March 8, 1983
(c) DoD Directive 5000.3, "Test and Evaluation," December 26, 1979

A. PURPOSE

This Instruction supplements references (a) through (c) to provide general management and documentation instructions for nuclear survivability and hardness activities conducted during the acquisition of systems that are critical to force-wide survivability in nuclear environments.

B. APPLICABILITY AND SCOPE

1. This Instruction applies to the Office of the Secretary of Defense, the Organization of the Joint Chiefs of Staff, the Military Departments, and the Defense Agencies (hereafter referred to collectively as "DoD Components"). The term "Military Services," as used herein, refers to the Army, the Navy, the Air Force, and the Marine Corps.

2. Its provisions apply to programs, systems, and subsystems that have nuclear survivability and hardness requirements and that are designated by the Secretary of Defense as major system acquisition programs or other programs periodically reviewed by the Under Secretary of Defense for Research and Engineering (USDR&E) under exceptional management procedures.

3. DoD Components shall ensure that nonmajor systems are scrutinized closely for potential impacts on critical functions. Procedures similar to those contained in this Instruction shall be developed and employed by DoD Components to ensure that these nonmajor systems exhibit appropriate nuclear survivability and hardness levels.

C. DEFINITIONS

1. Nuclear Hardness. A quantitative description of the physical attributes of the system or component that will allow survivability in a given weapon environment. Hardness is measured by physical quantities such as overpressure, peak velocities, energy absorbed, and electrical stress. Hardness is achieved through design specifications and is verified by one or more test and analysis techniques.

2. Nuclear Survivability. The capability of a system to survive in a nuclear environment and to be able to accomplish its mission. Survivability may be achieved by a number of methods, ranging from proliferation to hardness. The approach chosen shall depend on a variety of factors, including the technology available and cost.

D. POLICY

It is DoD policy that nuclear survivability and hardness features shall be included in the design, acquisition, and operation of major and nonmajor systems that must perform critical missions in nuclear conflicts. This includes conventional forces, nonstrategic nuclear forces, strategic nuclear forces, and supporting command, control, communications, and intelligence systems.

E. PROCEDURES

1. Emphasis shall be placed on nuclear survivability employing a proper combination of cost-effective survivability techniques, not just nuclear hardness of individual force elements.

2. Emphasis also shall be placed on recognizing the system's contribution to the success of a much larger wartime function. Such functions often require a combination of different major systems and other elements to operate together to ensure function or mission completion. Therefore, each DoD Component shall advise the USDR&E at each milestone point if another major or nonmajor system has become a critical survivability limitation in the operation of the major system under development.

3. The levels of nuclear hardness shall be quantified reliably, when possible, using system performance and nuclear environment criteria and verifiable design specifications that are insensitive to minor changes in the nuclear threat.

4. Nuclear hardness levels shall be validated, when possible, through a cost-effective combination of underground nuclear testing, simulation testing, and analysis.

5. Nuclear hardness shall be reevaluated at selected points during the system's life-cycle, particularly after retrofits and significant changes in the nuclear threat.

6. The acquisition phase shall include the development of a cost-effective hardness maintenance and hardness surveillance program to support the operational phase of life-cycle nuclear survivability.

7. Each DoD Component shall establish and document priorities and rationale for its nuclear survivability-related acquisition activities.

8. Each DoD Component shall assess nuclear survivability and shall identify key uncertainties and associated risks for systems with nuclear survivability requirements.

9. The Defense System Acquisition Review Council (DSARC) process shall include a careful examination of nuclear survivability and system hardness aspects and the potential impact of each system on larger wartime functions.

F. RESPONSIBILITIES

1. The Under Secretary of Defense for Research and Engineering, through his cognizant Deputy Under Secretary of Defense (DUSD) or the Assistant to the Secretary of Defense (Atomic Energy) (ATSD(AE)), may:

a. Request an informal review of the status of the nuclear survivability and hardness of a major system at any time, in accordance with DoD Instruction 5000.2 (reference (b)).

b. Review the nuclear survivability of supporting systems that must operate jointly in nuclear environments.

2. The Assistant to the Secretary of Defense (Atomic Energy) shall advise the DSARC on the adequacy of each nuclear survivability and hardness program.

3. The Director, Defense Nuclear Agency, shall provide, at the request of the DoD Components, technical advice on all aspects of nuclear survivability and hardness.

4. The Director, Defense Test and Evaluation, Office of the USDR&E (OUSDR&E), shall confirm that nuclear survivability and hardness objectives are achieved during development and operational test and evaluation.

5. The Head of each DoD Component developing a system shall achieve and verify system nuclear survivability and hardness.

G. INFORMATION REQUIREMENTS

1. Nuclear survivability and hardness management-level summaries and resource allocation summaries shall be included in the Justification for Major System New Start, System Concept Paper, Decision Coordinating Paper, and Integrated Program Summary (IPS), as specified in DoD Instruction 5000.2 (reference (b)).

2. Each DoD Component shall document its nuclear survivability plans for each appropriate system within existing program management documentation. Plans for testing nuclear survivability and hardness, including specification of adequate resources for test and evaluation, shall be documented in the Test and Evaluation Master Plan (DoD Directive 5000.3, reference (c)).

3. If requested not later than 90 days before a DSARC milestone, each DoD Component shall submit a summary nuclear survivability status briefing to the ATSD(AE) and the cognizant DUSD, OUSDR&E, not later than 15 working days before a DSARC meeting in accordance with DoD Instruction 5000.2 (reference (b)). The briefing shall be combined with a scheduled test and evaluation briefing, when possible, to avoid duplication of effort.

H. EFFECTIVE DATE AND IMPLEMENTATION

1. This Instruction is effective immediately for all major systems with nuclear survivability requirements that have not passed Milestone I (entered demonstration and validation phase). DoD Components shall forward one copy

of implementing documents to the Under Secretary of Defense for Research and Engineering within 90 days. Requests for waivers from this Instruction shall be submitted to the Under Secretary of Defense for Research and Engineering within 90 days.

2. For major acquisition and modification programs for systems with nuclear survivability requirements that have passed Milestone I, each DoD Component shall plan to implement this Directive within 12 months. A report shall be provided to the Under Secretary of Defense for Research and Engineering within 12 months summarizing each system's nuclear survivability requirements and the plan for meeting those requirements. If modifications to the program are considered necessary, the report shall identify the performance, schedule, and cost impacts. Any requests for waivers from this Instruction shall be submitted with the report.

James P. Wade, Jr.
Acting Under Secretary of Defense
for Research and Engineering

APPENDIX C(5)

DoD Directive 5148.2 dtd 10 Aug 78

August 10, 1978
NUMBER 5148.2

ASD(C)

Department of Defense Directive

SUBJECT Assistant to the Secretary of Defense (Atomic Energy)

References: (a) DoD Directive 5148.2, "Assistant to the Secretary of Defense (Atomic Energy)," January 7, 1959 (hereby cancelled)
(b) DoD Directive 5000.19, "Policies for the Management and Control of Information Requirements," March 12, 1976

A. PURPOSE

Pursuant to the authority vested in the Secretary of Defense under the provisions of title 10, United States Code, the position of Assistant to the Secretary of Defense (Atomic Energy) (hereinafter "the ATSD(AE)"), is hereby established with responsibilities, functions and authorities as prescribed herein. The Chairman of the Military Liaison Committee to the Department of Energy will serve as the ATSD(AE) without additional compensation.

B. RESPONSIBILITIES AND FUNCTIONS

The ATSD(AE), as the principal staff assistant for Department of Defense atomic energy matters, shall:

1. Develop policies, provide advice, make recommendations, and issue guidance on Defense atomic energy plans and programs.

2. Develop systems and standards for the administration and management of approved atomic energy plans and programs.

3. Review and evaluate programs for carrying out approved policies and standards.

4. Promote coordination, cooperation, and mutual understanding on atomic energy policies, plans, and programs within the Department of Defense, and between the DoD and other Federal agencies.

5. Participate in those DoD planning, programming and budgeting activities which relate to atomic energy matters.

6. Develop policies and procedures for the transmission of information to the Senate and House Armed Services Committees, as required by the Atomic Energy Act of 1954, as amended, and coordinate such information with other officials and agencies as appropriate.

7. Serve on boards, committees, and other groups concerned with atomic energy. Also, represent the Secretary of Defense on atomic energy matters outside the Department of Defense.

8. Perform such other functions as the Secretary of Defense may assign.

C. RELATIONSHIPS

1. The ATSD(AE) shall serve under the direction, control, and authority of the Under Secretary of Defense for Research and Engineering.

2. In the performance of assigned functions, the ATSD(AE) shall:

a. Coordinate and exchange information with other DoD organizations having collateral or related functions.

b. Use existing facilities and services, whenever practicable, to achieve maximum efficiency and economy.

c. Communicate with other Government agencies, representatives of the legislative branch, and members of the public, as appropriate, in carrying out assigned functions.

3. The Military Liaison Committee shall advise the ATSD(AE) on such atomic energy matters as the latter deems appropriate and necessary.

4. All DoD organizations shall coordinate all matters concerning the functions cited in section B. with the ATSD(AE).

D. AUTHORITIES

The ATSD(AE) is hereby delegated authority to:

1. Issue DoD Instructions and one-time directive-type memoranda, which carry out policies approved by the Secretary of Defense, in his assigned fields of responsibility. Instructions to the Military Departments will be issued through the Secretaries of those Departments, or their designees. Instructions to Unified and Specified Commands will be issued through the Joint Chiefs of Staff.

2. Obtain such reports, information, advice, and assistance, consistent with the policies and criteria of DoD Directive 5000.19 (reference (b)), as he deems necessary.

3. Communicate directly with heads of DoD organizations, including the Secretaries of the Military Departments, the Joint Chiefs of Staff, the Commanders of the Unified and Specified Commands, and the Directors of Defense Agencies. Communications of the ATSD(AE) to the Commanders of Unified and Specified Commands shall be coordinated with the Joint Chiefs of Staff.

E. EFFECTIVE DATE

This Directive is effective immediately.

C. W. Duncan, Jr.
Deputy Secretary of Defense

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APPENDIX C(6)

SecDef Memo for ASD(AE) & Director,
DNA dtd 28 Dec 77

THE SECRETARY OF DEFENSE
WASHINGTON D C 20301

DEC 2 8 1977

MEMORANDUM FOR THE ASSISTANT TO THE SECRETARY OF DEFENSE
(ATOMIC ENERGY)
DIRECTOR, DEFENSE NUCLEAR AGENCY

In order to enhance effective administration and streamlining of the Department, I am hereby placing the Assistant to the Secretary of Defense (Atomic Energy) and the Defense Nuclear Agency under the direction, authority and control of the Under Secretary of Defense for Research and Engineering. By delegation, DNA shall be supervised by the Chairman of the Joint Chiefs of Staff (for the Joint Chiefs of Staff) for military aspects of DNA activities, including: (a) composition of the nuclear stockpile; (b) allocation and deployment of nuclear weapons; (c) military participation and support of nuclear testing; (d) frequency of technical standardization inspections; and (e) requirements for technical publications. For these purposes, the Chairman of the Joint Chiefs of Staff may task and communicate with DNA directly. The Chairman of the Joint Chiefs of Staff (for the Joint Chiefs of Staff) shall also review and provide military advice on the adequacy of the DNA efforts in nuclear weapons testing and nuclear weapons effects research which is related directly to military systems considered in the Joint Strategic Objectives Plan, Joint Force Memorandum, and Nuclear Warhead Development Guidance. The mission, responsibilities and functions of the Defense Nuclear Agency are not affected by this memorandum.

DoD Directives 5105.31 and 5148.2 shall be revised to reflect the foregoing.

Harold Brown

cc: Chairman, Joint Chiefs of Staff
Under Secretary of Defense for
Research and Engineering

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APPENDIX C(7)

DoD Directive 5105.31 dtd 3 Nov 71

November 3, 1971
NUMBER 5105.31

ASD(C)

Department of Defense Directive

SUBJECT Defense Nuclear Agency (DNA)

References: (a) DoD Directive 5105.31, "Defense Atomic Support Agency (DASA)," July 22, 1964 (hereby cancelled)
(b) DoD Directive 4145.20, "Environmental Criteria and Design Standards for Atomic Weapons Storage and Maintenance Facilities," November 29, 1961 (hereby cancelled)
(c) DoD Directive 5154.4, "The Department of Defense Explosives Safety Board," October 23, 1971
(d) DoD Directive 5030.2, "Procedure for Handling Joint AEC-DoD Nuclear Weapons Development Projects," October 26, 1962

I. GENERAL

Pursuant to the authority vested in the Secretary of Defense, the Defense Nuclear Agency (DNA) is established as a designated agency of the Department of Defense (DoD) under the direction, authority, and control of the Secretary of Defense.

II. ORGANIZATION

DNA will consist of:

A. A Director, a Deputy Director (Operations and Administration), a Deputy Director (Science and Technology), and a headquarters establishment.

B. Such subordinate units, field activities, and facilities as are established by the Director, DNA, or are herein or hereafter assigned or attached specifically to DNA by the Secretary of Defense.

III. MISSION AND RESPONSIBILITIES

A. The mission of DNA is to provide support to the Secretary of Defense, the Military Departments, the Joint Chiefs of Staff, and other DoD Components, as appropriate, in matters concerning nuclear weapons as provided herein and such other aspects of the DoD nuclear program as may be directed by competent authority.

B. The Director, DNA, will be responsible for:

1. Consolidated management of the DoD nuclear weapons stockpile in accordance with the functions assigned herein.

2. Management of DoD nuclear weapons testing and nuclear weapons effects research programs. (This does not affect the basic Service responsibility for all aspects of specific weapons system development).

3. Providing staff advice and assistance on nuclear weapons matters within his cognizance to the Secretary of Defense, the Military Departments, the Joint Chiefs of Staff, other DoD Components, and government agencies, as appropriate and when requested.

IV. SUPERVISION

Staff supervision of DNA for the Secretary of Defense will be provided as follows:

A. The Joint Chiefs of Staff, acting through the Director, DNA, will exercise primary staff supervision over

DNA activities, except as prescribed otherwise herein. Specifically, they will:

1. Exercise staff supervision over the military operational aspects of DNA activities, including: (a) composition of the nuclear stockpile; (b) allocation and deployment of nuclear weapons; (c) military participation in and support of nuclear testing; (d) frequency of technical standardization inspections; and (e) requirements for technical publications.

2. Review and provide military advice on the adequacy of the DNA efforts in nuclear weapons testing and nuclear weapons effects research which is related directly to military systems considered in the Joint Strategic Objectives Plan, Joint Force Memorandum, and Nuclear Warhead Development Guidance.

B. The Director, Defense Research and Engineering (DDR&E) will exercise staff supervision through the Director, DNA, keeping the Director, Joint Staff, informed, of DNA activities associated with the DoD nuclear weapons effects research and nuclear weapons test programs.

C. The Assistant to the Secretary of Defense (Atomic Energy) will exercise staff supervision through the Director, DNA, keeping the Director, Joint Staff, informed, of DNA activities associated with: (1) technical nuclear safety; (2) logistics aspects of nuclear weapon stockpile management; (3) the application of nuclear energy in other than the weapons field; (4) the transmission of information to the Joint Committee on Atomic Energy, as required by the Atomic Energy Act of 1954, as amended; and (5) agreements between the DoD and the Atomic Energy Commission (AEC) on appropriate nuclear matters. In his role as Chairman of the Military Liaison Committee (MLC), the ATSD(AE) will exercise staff supervision through the Director, DNA, of DNA activities associated with DNA support of the MLC.

V. FUNCTIONS

Under its Director, and in accordance with the assignments of responsibility specified in Paragraph III., above, DNA will perform the following functions:

A. Maintain overall surveillance and provide guidance, coordination, advice, or assistance, as appropriate, for all nuclear weapons in DoD custody, including production, composition, allocation, deployment, movement, storage, maintenance, quality assurance and reliability assessment, reporting procedures, and retirement.

B. Provide advice and assistance, as appropriate, to the Secretary of Defense, Military Departments, Joint Chiefs of Staff, Unified and Specified Commands, and other government agencies on the effectiveness of nuclear weapons; the vulnerability of military forces, installations, and systems against nuclear weapons effects; and radiological defense activities. In this connection, when directed by the DDR&E, DNA will serve as DoD coordinator for work in selected technological areas related to nuclear vulnerability activities conducted by the Military Departments or other DoD Components.

C. Provide nuclear weapon stockpile information to the Joint Chiefs of Staff as required.

D. Provide nuclear warhead logistic information to authorized DoD organizations.

E. Plan, coordinate, and supervise the conduct of DoD nuclear weapons effects research and nuclear weapons testing, to include evaluation of the results of these programs.

F. Develop, coordinate, and maintain the national nuclear test readiness program jointly with the AEC and perform associated technical, operational, and safety planning.

G. Develop, coordinate, and conduct test exercises, overseas nuclear tests, and other nuclear-related operations, as directed. Arrange for mutual AEC-DoD support of AEC, DoD, or joint nuclear weapons tests.

H. Act as the central coordinating agency for the DoD with the AEC on nuclear weapon stockpile management, nuclear weapon testing, and nuclear weapons effects research within approved policies and programs and in consonance with the statutory provisions for the MLC and pertinent DoD-AEC agreements.

I. Conduct technical standardization inspections of units having responsibilities for assembling, maintaining or storing nuclear weapons, their associated components and ancillary equipment. Inspections will be performed on a selective sampling basis of nuclear capable units assigned to every major command in the Department of Defense. The Joint Chiefs of Staff will determine the frequency of such inspections. Inspection schedules will be coordinated with the major or component commands and the Service concerned.

J. Command the Armed Forces Radiobiology Research Institute (AFRRI).

K. Maintain and operate a Joint Nuclear Accident Coordinating Center (JNACC), in conjunction with the AEC.

L. Operate the Joint Atomic Information Exchange Group (JAIEG) in accordance with policy guidance furnished jointly by the ATSD(AE) for the DoD and the Assistant General Manager for Military Application for the AEC.

M. Perform for the DoD: (1) integrated materiel management functions for all AEC special designed and quality controlled nuclear ordnance items and for Service designed and quality controlled nuclear ordnance items where such management is mutually agreed upon between DNA and the appropriate Service, or as directed by the Assistant Secretary of Defense (Installations and Logistics); (2) management of

that portion of the Federal Cataloging Program pertaining to nuclear ordnance items including the maintenance of the central data bank and the publication of Federal Supply Catalogs and Handbooks for all nuclear ordnance items; (3) as the DoD assignee, the standardization of nuclear ordnance items in coordination with the appropriate Service; (4) management of the AEC-DoD loan account for nuclear materials; and (5) management of a technical logistics data and information program.

N. Perform technical analyses and studies for the Secretary of Defense, the Military Departments, and the Joint Chiefs of Staff of nuclear related problems; prepare and coordinate implementing directives and joint technical publications when requested. DNA will provide analysis and study results to Defense Components, as appropriate, when such results are pertinent to stated requirements.

O. In coordination with the AEC and the Military Departments, disseminate technological information of joint interest relating to nuclear technology, development, and weapons through laboratory liaison, technical reports, and nuclear weapons technical publications. Publications pertaining to specific weapons will be the responsibility of the lead Service for the weapon concerned.

P. Provide technical assistance and support to the Secretary of Defense, the Military Departments, and the Joint Chiefs of Staff in developing nuclear warhead safety requirements and reviewing and processing safety rules for nuclear weapons systems. When appropriate, coordination will be effected with the Department of Defense Explosives Safety Board. (See DoD Directive 5154.4 (reference (c)).

Q. Within guidelines established by the Joint Chiefs of Staff, investigate and recommend DoD security and safety standards and operating procedures.

R. Develop, prepare, and publish, in coordination with the AEC, Military Departments, and the Department of Defense Explosives Safety Board, appropriate guidance,

environmental criteria, and design standards for the construction of facilities to be used for the storage and maintenance of nuclear weapons.

S. Perform such other functions as may be assigned by the Secretary of Defense.

VI. AUTHORITY

The Director, DNA, is specifically delegated authority to:

A. Command the Defense Nuclear Agency.

B. Have access to and direct communications with all DoD Components and, after appropriate coordination, with other organizations.

C. Exercise the administrative authorities contained in Enclosure 1 of this Directive.

VII. RELATIONSHIPS

A. In the performance of his function, the Director, DNA, will: (1) coordinate actions as appropriate with other Components of the DoD and those departments and agencies of government having related functions: (2) maintain appropriate liaison for the exchange of information and findings related to his assigned responsibilities; (3) make maximum use of established facilities, procedures, and channels for logistic support, procurement, accounting, disbursing, investigative, and related administrative operations; (4) obtain information from any Component of the DoD which is necessary for the performance of DNA functions; and (5) insure that the Military Departments, Joint Chiefs of Staff, and appropriate OSD staff elements are kept fully informed concerning DNA activities.

B. The Military Departments and other DoD Components will: (1) provide assistance within their respective fields of responsibility to the Director, DNA, in carrying out

his assigned responsibilities and functions; (2) coordinate with DNA all programs which include or are related to nuclear weapons effects research or nuclear weapons testing. (This includes specifically keeping the Director, DNA informed of systems response to nuclear weapons effects) (3) keep the Director, DNA, informed as to the substance of their major actions being coordinated with other DoD Components, AEC and its laboratories, and other government agencies which relate to DNA functions; and (4) provide the Director, DNA, with requirements for nuclear weapons effects research and nuclear weapons testing.

VIII. ADMINISTRATION

A. The Director, DNA, will be a lieutenant general or vice admiral appointed by the Secretary of Defense, upon recommendation of the Joint Chiefs of Staff. Normally, the position of Director will rotate among the Services.

B. The Deputy Directors will be appointed by the Secretary of Defense. When military officers, the Deputy Directors will be recommended by the Joint Chiefs of Staff and will normally be selected from Services different from that of the Director. Civilian Deputy Directors will be recommended by the DDR&E.

C. DNA will be authorized such personnel, facilities, funds, and other administrative support as the Secretary of Defense deems necessary.

D. The Military Departments will assign military personnel to DNA in accordance with approved Joint Manpower Program authorizations. Procedures for such assignments will be as agreed upon between the Director, DNA, and the individual Military Departments.

IX. EFFECTIVE DATE AND CANCELLATION

This Directive is effective upon publication. References (a) and (b) are hereby superseded and cancelled. Reference (d) will be revised to reflect changed DNA functions.

Deputy Secretary of Defense

Enclosure - 1
Delegations of Authority

DELEGATIONS OF AUTHORITY

Pursuant to the authority vested in the Secretary of Defense, the Director, DNA, or, in the absence of the Director, a person acting for him is hereby delegated, subject to the direction, authority, and control of the Secretary of Defense, and in accordance with DoD policies, directives, and instructions, and pertinent OSD regulations, authority as required in the administration and operation of DNA to:

1. Exercise the powers vested in the Secretary of Defense by Section 204 of the National Security Act of 1947, as amended (10 U.S.C. 1580) and Section 12 of the Administrative Expenses Act of 1946, as amended (5 U.S.C. 302), pertaining to the employment, direction and general administration of DNA civilian personnel.

2. Fix rates of pay for wage board employees exempted from the Classification Act by 5 U.S.C. 5102(c)(7) on the basis of rates established under the Coordinated Federal Wage System. DNA, in fixing such rates, shall follow the wage schedules established by DoD Wage Fixing Authority.

3. Establish such advisory committees and employ such part-time advisors as approved by the Secretary of Defense for the performance of DNA functions pursuant to the provisions of 10 U.S.C. 173, 5 U.S.C. 3109(b), and the Agreement between the DoD and the Civil Service Commission on employment of experts and consultants, dated July 22, 1959.

4. Administer oaths of office incident to entrance into the Executive Branch of the Federal Government or any other oath required by law in connection with employment therein, in accordance with the provisions of the Act of June 26, 1943, as amended, 5 U.S.C. 2903(b), and designate in writing, as may be necessary, officers and employees of DNA to perform this function.

5. Establish a DNA Incentive Awards Board and pay cash awards to and incur necessary expenses for the honorary recognition of civilian employees of the Government whose suggestions, inventions, superior accomplishment, or other personal efforts, including special acts or services, benefit or affect DNA or its subordinate activities in accordance with the provisions of the Act of September 1, 1954, as amended, 5 U.S.C. 4503, and Civil Service Regulations.

6. In accordance with the provisions of the Act of August 26, 1950, as amended (5 U.S.C. 7532); Executive Order 10450, dated April 27, 1953, as amended; and DoD Directive 5210.7, dated September 2, 1966 (as revised):

a. Designate any position in DNA as a "sensitive" position;

b. Authorize, in case of an emergency, the appointment of a person to a sensitive position in the Agency for a limited period of time for whom a full field investigation or other appropriate investigation, including the National Security Check, has not been completed; and

c. Authorize the suspension, but not to terminate the services of an employee in the interest of national security in positions within DNA.

7. Clear DNA personnel and such other individuals as may be appropriate for access to classified Defense material and information in accordance with the provisions of DoD Directive 5210.8, dated February 15, 1962 (as revised), "Policy on Investigation and Clearance of Department of Defense Personnel for Access to Classified Defense Information" and of Executive Order 10501, dated November 5, 1953, as amended.

8. Act as agent for the collection and payment of employment taxes imposed by Chapter 21 of the Internal Revenue Code of 1954, and, as such agent, make all determinations and certifications required or provided for under Section 3122 of the Internal Revenue Code of 1954, 26 U.S.C. 3122, and Section 205(p) (1) and (2) of the Social Security Act, as amended, 42 U.S.C., 405(p) (1) and (2), with respect to DNA employees.

9. Authorize and approve overtime work for DNA civilian officers and employees in accordance with the provisions of Section 550.111 of the Civil Service Regulations.

10. Authorize and approve:

a. Travel for DNA civilian officers and employees in accordance with Joint Travel Regulations, Volume 2, Department of Defense, Civilian Personnel, dated July 1, 1965, as amended.

b. Temporary duty travel only for military personnel assigned or detailed to DNA in accordance with Joint Travel Regulations, Volume I, for Members of the Uniformed Services, dated November 1969, as amended.

c. Invitational travel to persons serving without compensation whose consultative, advisory, or highly specialized technical services are required in a capacity that is directly related to or in connection with DNA activities, pursuant to the provisions of Section 5 of the Administrative Expenses Act of 1946, as amended (5 U.S.C. 5703).

11. Approve the expenditure of funds available for travel by military personnel assigned or detailed to DNA for expenses incident to attendance at meetings of technical, scientific, professional or other similar organizations in such instances where the approval of the Secretary of Defense or his designee is required by law (37 U.S.C. 412). This authority cannot be redelegated.

12. Develop, establish, and maintain an active and continuing Records Management Program, pursuant to the provisions of Section 506(b) of the Federal Records Act of 1950, 44 U.S.C. 3102.

13. Enter into and administer contracts, directly or through a Military Department, a DoD contract administration services component, or other Government department or agency, as appropriate, for supplies, equipment and services required to accomplish the mission of the DNA. To the extent that any law or executive order specifically limits the exercise of such authority to persons at the Secretarial level of a Military Department, such authority will be exercised by the Assistant Secretary of Defense (Installations and Logistics).

14. Establish and use Imprest Funds for making small purchases of material and services other than personal for DNA when it is determined more advantageous and consistent with the best interests of the Government, in accordance with the provisions of DoD Instruction 7280.1, dated August 24, 1970, and the Joint Regulation of the General Services Administration -- Treasury Department -- General Accounting Office, entitled "For Small Purchases Utilizing Imprest Funds."

15. Authorize the publication of advertisements, notices, or proposals in public periodicals as required for the effective administration and operation of DNA (44 U.S, C. 3702).

16. a. Establish and maintain appropriate Property Accounts for DNA.

b. Appoint Boards of Survey, approve reports of survey, relieve personal liability, and drop accountability for DNA property contained in the authorized Property Accounts that has been lost, damaged, stolen, destroyed, or otherwise rendered unserviceable, in accordance with applicable laws and regulations.

17. Promulgate the necessary security regulations for the protection of property and activities under the jurisdiction of the Director, DNA, pursuant to subsections III.A. and V. B. of DoD Directive 5200.8, dated August 20, 1954.

18. Establish and maintain, for the functions assigned, an appropriate publications system for the promulgation of regulations, instructions, and reference documents, and changes thereto, pursuant to the policies and procedures prescribed in DoD Directive 5025.1, dated March 7, 1961.

19. Enter into support and service agreements with the Military Departments, other DoD agencies, or other Government agencies as required for the effective performance of responsibilities and functions assigned to DNA.

20. Issue appropriate implementing documents and establish internal procedures to assure that the selection and acquisition of ADP resources are conducted within the policies contained in DoD Directive 4105.55, dated January 21, 1971, the Federal Property Management Regulations and Armed Services Procurement Regulations.

The Director, DNA may redelegate these authorities, as appropriate, and in writing, except as otherwise specifically indicated above or as otherwise provided by law or regulation.

This delegation of authority is effective immediately and supersedes the Delegation of Authority made to the Director, DNA in Enclosure 1 to DoD Directive 5105.31 dated July 22, 1964.

APPENDIX D

APPENDIX D(1)

Proposed DoD Directive

Approved DoD Directive	Comments	Proposed DoD Directive
I. GENERAL		
Pursuant to the authority vested in the Secretary of Defense, the Defense Nuclear Agency (DNA) is established as a designated agency of the Department of Defense (DoD) under the direction, authority, and control of the Secretary of Defense.		No change
II. ORGANIZATION		
DNA will consist of:		
A. A Director, ~~a Deputy Director (Operations and Administration)~~, a Deputy Director ~~(Science and Technology)~~, and a headquarters establishment.	A. Delete "a Deputy Director (Operations and Administration), a Deputy Director (Science and Technology).	A. A Director, a Deputy Director and a headquarters establishment
B. Such subordinate units, field activities, and facilities as are established by the Director, DNA, or are herein or hereafter assigned or attached specifically to DNA by the Secretary of Defense.		No change
III. MISSION AND RESPONSIBILITIES		
A. The mission of DNA is to provide support to the Secretary of Defense, the Military Departments, the Joint Chiefs of Staff, and other DoD Components, as appropriate, in matters concerning nuclear weapons as provided herein and such other aspects of the DoD nuclear program as may be directed by competent authority.	Add "...(nuclear) weapon systems and forces.." Omit "...as may be..."	A. *The mission of DNA is to provide support* to the Secretary of Defense, the Military Departments, the Joint Chiefs of Staff, and other DoD components in matters concerning nuclear weapons, weapon systems and forces and such other aspects of the DoD nuclear program as directed by competent authority.
B. The Director, DNA, will be responsible for:		B. The Director, DNA, will be responsible for:
1. Consolidated management of the DoD nuclear weapons stockpile in accordance with the functions assigned herein.	Change "management to maintenance" Delimit to reflect "databases"	1. Consolidated maintenance of DoD nuclear weapon stockpile data bases in accordance with the functions assigned herein.
2. Management of DoD nuclear weapons testing and nuclear weapons effects research programs. (This does not affect the basic Service responsibility for all aspects of specific weapons system development).	Focus on "effects" - DoD does not test nuclear weapons. Omit qualifier	2. Management of DoD nuclear effects research and nuclear effects test programs.
3. Providing staff advice and assistance on nuclear weapons matters within his cognizance to the Secretary of Defense, the Military Departments, the Joint Chiefs of Staff, other DoD Components, and government agencies, as appropriate and when requested.	Change to "...weapon systems & force..." Omit "...within his cognizance..." Omit "...as appropriate and when requested."	3. Providing staff advice and assistance on nuclear weapon system and force matters to the Secretaries of Defense, the Military Departments, the Joint Chiefs of Staff, other DoD components, and government agencies.

Approved DoD Directive	Comments	Proposed DoD Directive
IV. SUPERVISION		IV. SUPERVISION
Staff supervision of DNA for the Secretary of Defense will be provided as follows:	Omit much detail - not useful.	Staff supervision of DNA for the Secretary of Defense will be provided as follows:
A. The Joint Chiefs of Staff, acting through the Director, DNA, will exercise primary staff supervision over DNA activities, except as prescribed otherwise herein. Specifically, they will:		A. The DNA is under the direction, authority, and control of the Under Secretary of Defense for Research and Engineering (USDRE). The Under Secretary of Defense for Research and Engineering acting through the Director, DNA will exercise primary staff supervision over DNA activities, except as prescribed otherwise herein.
1. Exercise staff supervision over the military operational aspects of DNA activites including: (a) composition of the nuclear stockpile; (b) allocation and deployment of nuclear weapons; (c) military participation in and support of nuclear testing; (d) frequency of technical standardization inspections; and (e) requirements for technical publications.		
2. Review and provide military advice on the adequacy of the DNA efforts in nuclear weapons testing and nuclear weapons effects research which is related directly to military systems considered in the Joint Strategic Objectives Plan, Joint Force Memorandum, and Nuclear Warhead Development Guidance.		
B. The Director, Defense Research and Engineering (DDR&E) will exercise staff supervision through the Director, DNA, keeping the Director, Joint Staff, informed, of DNA activities associated with the DoD nuclear weapons effects research and nuclear weapons test programs.	Omit "...weapons..." from effects Add "with matters related to the Safety, Security & Control of nuclear weapon systems and forces."	B. By delegation, DNA shall be supervised by the Chairman of the Joint Chiefs of Staff (for the Joint Chiefs of Staff) for military aspects of DNA activities. The Chairman of the Joint Chiefs of Staff (for the Joint Chiefs of Staff) shall also review and provide military advice on the adequacy of the DNA efforts in nuclear weapons effects research which is related directly to military systems considered in Joint Strategic Objectives Plan, Joint Force Memorandum and Nuclear Warhead Development Guidance.
C. The Assistant to the Secretary of Defense (Atomic Energy) will exercise staff supervision through the Director, DNA, keeping the Director, Joint Staff, informed, of DNA activities associated with: (1) technical nuclear safety; (2) logistics aspects of nuclear weapon stockpile management; (3) the application of nuclear energy in other than the weapons field; (4) the transmission of information to the Joint Committee on Atomic Energy, as required by the Atomic Energy Act of 1954, as amended; and (5) agreements between the DoD and the Atomic Energy Commission (AEC) on appropriate nuclear matters. In his role as Chairman of the Military Liaison Committee (MLC), the ATSD(AE) will exercise staff supervision through the Director, DNA, of DNA activities associated with DNA support of the MLC.	Paragraph C is unnecessary and perhaps counterproductive. When this Directive was first written ATSD(AE) did not report to USDR&E. (1) What is? (2) Should feed JCS. (3) What is? (4) JCAE gone (5) What is? (6) Suggest MLC get its own staff. They used to have one.	C. Delete

Approved DoD Directive	Comments	Proposed DoD Directive
V. FUNCTIONS		V. FUNCTIONS
Under its Director, and in accordance with the assignments of responsibility specified in Paragraph III., above, DNA will perform the following functions:		Under its Director, and in accordance with the assignments of responsibility specified in Paragraph III., above, DNA will perform the following functions:
A. Maintain overall surveillance and provide guidance, coordination, advice, or assistance, as appropriate, for all nuclear weapons in DoD custody, including production, composition, allocation, deployment, movement, storage, maintenance, quality assurance and reliability assessment, reporting procedures, and retirement.	[Note "proposed" paragraphs have been reordered from those in the "approved" column.] I don't understand the purpose of "Approved A." I believe the functions are better stated elsewhere.	A. Delete
B. Provide advice and assistance, as appropriate, to the Secretary of Defense, Military Departments, Joint Chiefs of Staff, Unified and Specified Commands, and other government agencies on the effectiveness of nuclear weapons; the vulnerability of military forces, installations, and systems against nuclear weapons effects; and radiological defense activites. In this connection, when directed by the DDR&E, DNA will serve as DoD coordinator for work in selected technological areas related to nuclear vulnerability activities conducted by the Military Departments or other DoD Components.	Omit "...as appropriate..." Add "...survivability..." What does "...radiological defense activities," mean? Omit last sentence.	B. Provide advice and assistance to the Secretary of Defense, Military Departments, Joint Chiefs of Staff, Unified and Specified Commands, and other government agencies on the effects of nuclear weapons and the vulnerabilities and survivabilities of military forces, installations, and systems.
C. Provide nuclear weapon stockpile information to the Joint Chiefs of Staff as required.		G. Maintain and provide nuclear weapon stockpile information to the Joint Chiefs of Staff and other government agencies as required.
D. Provide nuclear warhead logistic information to authorized DoD organizations.	Covered in "Proposed" E above	Delete
E. Plan, coordinate, and supervise the conduct of DoD nuclear weapons effects research and nuclear weapons testing to include evaluation of the results of these programs.		A. Manage the DoD nuclear effects research and test programs.
F. Develop, coordinate, and maintain the national nuclear test readiness program jointly with the AEC and perform associated technical, operational, and safety planning.	Add test facility maintenance	C. Manage the national nuclear test readiness program jointly with the DOE and perform associated technical, operational, and safety planning. Maintain access to facilities necessary to resume above-ground testing.

Approved DoD Directive	Comments	Proposed DoD Directive
G. Develop, coordinate, and conduct test exercises, overseas nuclear tests, and other nuclear-related operations, as directed. Arrange for mutual AEC-DoD support of AEC, DoD, or joint nuclear weapons tests.	Don't know what G is intended to do. "Approved" F seems to cover.	G. Delete
H. Act as the central coordinating agency for the DoD with the AEC on nuclear weapon stockpile management, nuclear weapon testing, and nuclear weapons effects research within approved policites and programs and in consonance with the statutory provisions for the NLC and pertinent DoD-AEC agreements.	Add "database" Add "effects" delete "weapon"	D. Act as the central coordinating agency for the DoD with the DOE on nuclear weapon stockpile database management, nuclear effects testing, and nuclear effects research within approved policites and programs and in consonance with the statutory provisions for the NLC and pertinent DoD-DOE agreements
I. Conduct technical standardization inspections of units having responsibilities for assembling, maintaining or storing nuclear weapons, their associated components and ancillary equipment. Inspections will be performed on a selective sampling basis of nuclear capable units assigned to every major command in the Department of Defense. The Joint Chiefs of Staff will determine the frequency of such inspections. Inspection schedules will be coordinated with the major or component commands and the Service concerned.	Remove how-to statements	H. For the JCS conduct technical standardization inspections of units having responsibilities for assembling, maintaining or storing nuclear weapon systems, their associated components and ancillary equipment.
J. Command the Armed Forces Radiobiology Research Institute (AFRRI).	"Approved" J could be deleted. General permission covered in IIB	J. Delete
K. Maintain and operate a Joint Nuclear Accident Coordinating Center (JNACC), in conjunction with the AEC.		F. Maintain and operate a Joint Nuclear Accident Coordinating Center (JNACC), in conjunction with the DOE.
L. Operate the Joint Atomic Information Exchange Group (JAIEG) in accordance with policy guidance furnished jointly by the ATSD(AE) for the DoD and the Assistant General Manager for Military Application for the AEC.		J. Operate the Joint Atomic Information Exchange Group (JAIEG) in accordance with policy guidance furnished jointly by the ATSD(AE) for the DoD and the Deputy Assistant Secretary for Military Application for the DOE.
M. Perform for the DoD: (1) integrated material management functions for all AEC special designed and quality controlled nuclear ordnance items and for Service designed and quality controlled nuclear ordnance items where such management is mutually agreed upon between DNA and the appropriate Service, or as directed by the Assistant Secretary of Defense (Installations and Logistics); (2) management of that portion of the Federal Cataloging Program pertaining to nuclear ordnance items including the maintenance of the central data bank and the publication of Federal Supply Catalogs and Handbooks for all nuclear ordnance items; (3) as the DoD assignee, the standardization of nuclear ordnance items in coordination with the appropriate Service; (4) management of the AEC-DoD loan account for nuclear materials; and (5) management of a technical logistics data and information program.	Add "nuclear weapon quality assurance oversight." Changed AEC to DOE	I. Perform for the DoD: (1) nuclear weapon quality assurance program oversight, (2) integrated material management functions for all DOE special designed and quality controlled nuclear ordnance items and for Service designed and quality controlled nuclear ordnance items where such management is mutually agreed upon between DNA and the appropriate Service, or as directed by the Assistant Secretary of Defense (Installations and Logistics); (3) management of that portion of the Federal Cataloging Program pertaining to nuclear ordnance items including the maintenance of the central data bank and the publication of Federal Supply Catalogs and Handbooks for all nuclear ordnance items; (4) as the DoD assignee, the standardization of nuclear ordnance items in coordination with the appropriate Service; (5) management of the DOE-DoD loan account for nuclear materials; and (6) management of a technical logistics data and information program.

Approved DoD Directive	Comments	Proposed DoD Directive
	Add I' (from DOE-DNA TP1-1) to cover manuals, UR's, JTG's, etc.	I' Represent the DoD in its relation with the DOE in all policy matters relating to the administration and operation of the Joint Nuclear Weapons Publication System. These policy matters shall be coordinated and approved by the Services.
	Add I'' (DOE-DNA-TP100-1) to cover base supplies, training weapons, etc.	I'' As Inventory Control Manager of stockpile support items, manage the DoD-DOE logistics supply interface.
M. Perform technical analyses and studies for the Secretary of Defense, the Military Departments, and the Joint Chiefs of Staff of nuclear related problems; prepare and coordinate implementing directives and joint technical publications when requested. DNA will provide analysis and study results to Defense Components, as appropriate, when such results are pertinent to stated requirements.	General authorization stated elsewhere	M. Delete
O. In coordination with the AEC and the Military Departments, disseminate technological information of joint interest relating to nuclear technology, development, and weapons through laboratory liaison, technical reports, and nuclear weapons technical publications. Publications pertaining to specific weapons will be the responsibility of the lead Service for the weapon concerned.	Covered elsewhere	O. Delete
P. Provide technical assistance and support to the Secretary of Defense, the Military Departments, and the Joint Chiefs of Staff in developing nuclear warhead safety requirements and reviewing and processing safety rules for nuclear weapons systems. When appropriate, coordination will be effected with the Department of Defense Explosives Safety Board (See DoD Directive 5154.4 (reference (c)).	Change "warhead to weapon system" Add "security and control" Delete last sentence Add "membership requirement" Add "Coordinate..."	E. Within guidelines established by the Joint Chiefs of Staff, provide technical assistance and support to the Secretary of Defense, the Military Departments, and the Joint Chiefs of Staff in developing nuclear weapon system safety, security and control requirements and operating procedures. Provide a member to joint DoD/DOE nuclear weapon system safety studies and reviews. Coordinate on proposed safety rules and changes.
Q. Within guidelines established by the Joint Chiefs of Staff, investigate and recommend DoD security and safety standards and operating procedures.	Combined with "Proposed" E	
R. Develop, prepare, and publish, in coordination with the AEC, Military Departments, and the Department of Defense Explosives Safety Board, appropriate guidance, environmental criteria, and design standards for the construction of facilities to be used for the storage and maintenance of nuclear weapons.	Service responsibility	R. Delete
S. Perform such other functions as may be assigned by the Secretary of Defense.		R. Perform such other functions as may be assigned by the Secretary of Defense.

Approved DoD Directive	Comments	Proposed DoD Directive
VI. AUTHORITY The Director, DNA, is specifically delegated authority to: A. Command the Defense Nuclear Agency. B. Have access to and direct communications with all DoD Components and, after appropriate coordination, with other organizations. C. Exercise the administrative authorities contained in Enclosure 1 of this Directive.		No Change
VII. RELATIONSHIPS A. In the performance of his function, the Director, DNA, will: (1) coordinate actions as appropriate with other Components of the DoD and those departments and agencies of government having related functions; (2) maintain appropriate liaison for the exchange of information and findings related to his assigned responsibilities; (3) make maximum use of established facilities, procedures, and channels for logistic support, procurement, accounting, disbursing, investigative, and related administrative operations; (4) obtain information from any Component of the DoD which is necessary for the performance of DNA functions; and (5) insure that the Military Departments, Joint Chiefs of Staff, and appropriate OSD staff elements are kept fully informed concerning DNA activities.		No Change
B. The Military Departments and other DoD Components will: (1) provide assistance within their respective fields of responsibility to the Director, DNA, in carrying out his assigned responsibilities and functions; (2) coordinate with DNA all programs which include or are related to nuclear weapons effects research or nuclear weapons testing; (this includes specifically keeping the Director, DNA informed of systems response to nuclear weapons effects) (3) keep the Director, DNA, informed as to the substance of their major actions being coordinated with other DoD Components, AEC and its laboratories, and other government agencies which relate to DNA functions; and (4) provide the Director, DNA, with requirements for nuclear weapons effects research and nuclear weapons effects testing.	Delete statement in parentheses in (2) Delete "weapon" — (several places" Add "effects"	B. The Military Departments and other DoD Components will: (1) provide assistance within their respective fields of responsibility to the Director, DNA, in carrying out his assigned responsibilities and functions; (2) coordinate with DNA all programs which include or are related to nuclear effects research or nuclear effects testing; (3) keep the Director, DNA, informed as to the substance of their major actions being coordinated with other DoD Components, DOE and its laboratories, and other government agencies which relate to DNA functions; and (4) provide the Director, DNA, with requirements for nuclear effects research and nuclear effects testing.

Approved DoD Directive	Comments	Proposed DoD Directive
VIII. ADMINISTRATION		
A. The Director, DNA, will be a lieutenant general or vice admiral appointed by the Secretary of Defense, upon recommendation of the Joint Chiefs of Staff. Normally, the position of Director will rotate among the Services.	Rewritten in Proposed Directive column	A. The Director, DNA, will be either a lieutenant general or vice admiral, or a civilian of equivalent rank. When the appointee is military, he will be appointed by the Secretary of Defense, upon the recommendation of the Joint Chiefs of Staff with the concurrence of the Undersecretary of Defense (R&E). When the appointee is civilian, he will be appointed by the Secretary of Defense upon the recommendation of the Undersecretary of Defense (R&E).
B. The Deputy Directors will be appointed by the Secretary of Defense. When military officers, the Deputy Directors will be recommended by the Joint Chiefs of Staff and will normally be selected from Services different from that of the Director. Civilian Deputy Directors will be recommended by the DDR&E.	Change to USDR&E	B. The Deputy Director will be appointed by the Secretary of Defense. When a military officer, the Deputy Director will be recommended by the Joint Chiefs of Staff. When a civilian, the Deputy Director will be recommended by USDR&E.
C. DNA will be authorized such personnel, facilities, funds, and other administrative support as the Secretary of Defense deems necessary.		No change
D. The Military Departments will assign military personnel to DNA in accordance with approved Joint Manpower Program authorizations. Procedures for such assignments will be as agreed upon between the Director, DNA, and the individual Military Departments.		No change
IX. EFFECTIVE DATE AND CANCELLATION		
This Directive is effective upon publication. References (a) and (b) are hereby superseded and cancelled. Reference (d) will be revised to reflect changed DNA functions.		No change

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APPENDIX D(2)

Proposed DoD Directive

Proposed DoD Directive

I. GENERAL

Pursuant to the authority vested in the Secretary of Defense, the Defense Nuclear Agency (DNA) is established as a designated agency of the Department of Defense (DoD) under the direction, authority, and control of the Secretary of Defense.

II. ORGANIZATION

DNA will consist of:

A. A Director, a Deputy Director, and a headquarters establishment.

B. Such subordinate units, field activities, and facilities as are established by the Director, DNA, or are herein or hereafter assigned or attached specifically to DNA by the Secretary of Defense.

III. MISSION AND RESPONSIBILITIES

A. The mission of DNA is to provide support to the Secretary of Defense, the Military Departments, the Joint Chiefs of Staff, and other DoD components in matters concerning nuclear weapons, weapon systems and forces and such other aspects of the DoD nuclear program as directed by competent authority.

B. The Director, DNA will be responsible for:

1. Consolidated maintenance of DoD nuclear weapon stockpile data bases in accordance with the functions assigned herein.

2. Management of DoD nuclear effects research and nuclear effects test programs.

3. Providing staff advice and assistance on nuclear weapon systems and force matters to the Secretaries of Defense, the Military Departments, the Joint Chiefs of Staff, other DoD components, and government agencies.

IV. SUPERVISION

Staff supervision of DNA for the Secretary of Defense will be provided as follows:

A. The Defense Nuclear Agency is under the direction, authority, and control of the Under Secretary of

Defense for Research and Engineering (USDRE). The Under Secretary of Defense for Research and Engineering, acting through the Director, DNA, will exercise primary staff supervision over DNA activities, except as prescribed otherwise herein.

B. By delegation, DNA shall be supervised by the Chairman of the Joint Chiefs of Staff (for the Joint Chiefs of Staff) for military aspects of DNA activities. The Chairman of the Joint Chiefs of Staff (for the Joint Chiefs of Staff) shall also review and provide military advice on the adequacy of the DNA efforts in nuclear weapons testing and nuclear weapons effects research which is related directly to military systems considered in the Joint Strategic Objectives Plan, Joint Force Memorandum and Nuclear Warhead Development Guidance.

V. FUNCTIONS

Under its Director, and in accordance with the assignments of responsibility specified in Paragraph III., above, DNA will perform the following functions:

A. Manage the nuclear effects research and test programs.

B. Provide advice and assistance to the Secretary of Defense, Military Departments, Joint Chiefs of Staff, Unified and Specified Commands, and other government agencies on the effects of nuclear weapons and the vulnerabilities and survivabilities of military forces, installations, and systems.

C. Manage the national nuclear test readiness program jointly with the DOE and perform associated technical, operational, and safety planning. Maintain access to facilities necessary to resume above-ground testing.

D. Act as the central coordinating agency for the DoD with the DOE on nuclear weapon stockpile data base management, nuclear effects testing, and nuclear effects research within approved policies and programs and in consonance with the statutory provisions for the MLC and pertinent DoD-DOE agreements.

E. Within guidelines established by the Joint Chiefs of Staff, provide technical assistance and support to the Secretary of Defense, the Military Departments, and the Joint Chiefs of Staff in developing nuclear weapon system safety, security and control standards,

requirements and operating procedures. Provide a member to joint DoD/DOE nuclear weapon system safety studies and reviews. Coordinate on proposed safety rules and changes.

V. AUTHORITY

The Director, DNA, is specifically delegated authority to:

A. Exercise control over the Defense Nuclear Agency.

B. Have access to and direct communications with all DoD components and, after appropriate coordination, with other organizations.

C. Exercise the administrative authorities contained in Enclosure 1 of this Directive.

VII. RELATIONSHIPS

A. In the performance of his function, the Director, DNA, will: (1) coordinate actions as appropriate with other components of the DoD and those departments and agencies of government having related functions; (2) maintain appropriate liaison for the exchange of information and findings related to his assigned responsibilities; (3) make maximum use of established facilities, procedures, and channels for logistic support, procurement, accounting, disbursing, investigative, and related administrative operations; (4) obtain information from any component of the DoD which is necessary for the performance of DNA functions; and (5) insure that the Military Departments, Joint Chiefs of Staff, and appropriate OSD staff elements are kept fully informed concerning DNA activities.

B. The Military Departments and other DoD components will: (1) provide assistance within their respective fields of responsibility to the Director, DNA, in carrying out his assigned responsibilities and functions; (2) coordinate with DNA all programs which include or are related to nuclear effects research or nuclear effects testing; (3) keep the Director, DNA informed as to the substance of their major actions being coordinated with other DoD components, DOE and its laboratories, and other government agencies which relate to DNA functions; and (4) provide the Director, DNA, with requirements for nuclear effects research and nuclear effects testing.

VIII. ADMINISTRATION

A. The Director, DNA, will be either a lieutenant general or vice admiral, or a civilian of equivalent rank. When the appointee is military, he will be appointed by the Secretary of Defense, upon the recommendation of the Joint Chiefs of Staff with the concurrence of the Under Secretary of Defense (R&E). When the appointee is civilian, he will be appointed by the Secretary of Defense upon the recommendation of the Under Secretary of Defense (R&E).

B. The Deputy Director will be appointed by the Secretary of Defense. When a military officer, the Deputy Director will be recommended by the Joint Chiefs of Staff. When a civilian, the Deputy Director will be recommended by the USDRE.

C. DNA will be authorized such personnel, facilities, funds, and other administrative support as the Secretary of Defense deems necessary.

D. The Military Departments will assign military personnel to DNA in accordance with approved Joint Manpower Program authorizations. Procedures for such assignments will be as agreed upon between the Director, DNA, and the individual Military Departments.

IX. EFFECTIVE DATE AND CANCELLATION

This Directive is effective upon publication. References (a) and (b) are hereby superseded and cancelled. Reference (d) will be revised to reflect changed DNA functions.

APPENDIX D(3)

Concerns on Personnel

Some Concerns on Personnel

DNA has some world-class technical managers, but there are worries for the future:

- Difficulty in recruiting civilians
- Nearly impossible to get senior, short-tour people from industry
- Declining number of experienced, high-tech military
- Keeping senior civilians happy in non-supervisory positions
- Increasing fraction of time spent on process

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APPENDIX D(4)

FY 86 Major Goals

FY 86 Major Goals

- **Complete ASH/HML support to BMO**
- **Continue system support (e.g., MX, Trident II, MILSTAR, SICBM)**
- **Enhance manpower (e.g., SDI, DoDI 4245.4)**
- **Increase Tech Transfer to PM's/SPO's**
- **Shock Physics Effects**
  - Develop deep underground structures data base
  - Evaluate novel shallow penetration RV concept
  - Update dust cloud inventory for targeting applications
  - Complete evaluation of high yield Pacific craters
  - Develop super high overpressure air blast data base
  - Evaluate hardness implication of current Soviet silo upgrades

FY 86 Major Goals

- **Radiation Effects & Hardening Technology**
  - Complete development of 64K CMOS static RAM
  - Begin development of speed-enhanced follow-on RAM
  - Begin support to hardening Phase II VHSIC
  - Continue HiLat sat experiments for space based radar applications
  - Launch Polar BEAR satellite
  - Complete EMP Engineering Handbook for GBF
  - Extend EMP S&S Program to non time-urgent systems

- **Pulse Power**
  - Complete development of high-energy density 'super capacitors'
  - Continue development of microwave sources for lethality testing
  - Achieve operational capability of first high energy EML facility

FY 86 Major Goals

- Improve 'Nuclear Winter' predictive capabilities
- Testing
  - Middle Note/Mighty Oak/Mill Yard/Diamond Beech Planning
  - Misty Picture HE Event/dust cloud RV fly-through
  - Complete upgrade of CASINO rad simulator facility
  - Continue engine dust ingestion tests

FY 86 Major Goals

Survivability and Security

- Develop a secure/survivable TNF storage and transport posture
- Initiate a comprehensive land-based missile survivability assessment program
- Demonstrate new technical deception and OPSEC concepts
- Develop countermeasures to defeat nuclear terrorism

Strategic Operations

- Demonstrate rapid retargeting of Minuteman III
- Complete prototype development of automated combat mission folder
- Complete software development for SAC HERT
- Complete initial software for merging SIOP weapons and targets
- Complete installation of Trident planning software into U.K. facilities
- Deliver civilian casualty code to JSTPS

SDIO - Lethality and Target Hardening

- Resolve CW laser spot issue
- Resolve CW high irradiance issue
- Develop particle beam test capability at Brookhaven National Laboratory
- Determine if a microwave weapon can kill a post boost vehicle
  - Unhardened
  - Cost to harden
- Determine kinetic energy weapon lethality against reentry vehicles and post boost vehicles

Theater Operations

- Reduce nuclear targeting cycle time
- Initiate development of CINC mobile nuclear operations center
- Initiate development of groundwave command and control capability
- Investigate command and control options for TLAM-N
- Complete SHAPE deconfliction softwave
- Complete NWRS automation
- Complete analysis of USPACOM nuclear campaign plan
- Investigate nuclear/conventional weapons mix alternatives

Strategic Defense Initiative at DNA
(Dollars in Thousands)

Funding by SDIO Suballocation	FY 1986
Surveillance, Acquisition, Track and Kill Assessment	16,700
Systems Concepts/Battle Management	9,000
Lethality	87,800
Subtotal	113,500
Funding by SDIO MIPR	
Small Business Innovation Research	20,000
Electromagnetic Launcher	10,000
Space Power	13,500
Ground Based Laser	1,500
Subtotal	45,000
SDI Funding by Air Force MIPR	
Survivability	6,000
Total SDI Funds at DNA	**164,500**

APPENDIX D(5)

Quality Control

Quality Control

Internal

- Chain of Command
- Ad hoc internal committees
- Program reviews

External

- Technical community peer review*
- ATSD(AE)
- Nuclear coordinating committee
- SAGE
- Customers/sponsor
- Congress

**in jeopardy*

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APPENDIX D(6)

Charter for
Scientific Advisory Group on Effects (SAGE)
Defense Nuclear Agency

1 October 1984 (Eff. for 2 yrs)

CHARTER FOR
SCIENTIFIC ADVISORY GROUP ON EFFECTS (SAGE)
DEFENSE NUCLEAR AGENCY

A. Official Designation:

The Committee's official designation is the Scientific Advisory Group on Effects (SAGE).

B. Objectives and Scope:

The SAGE is established to advise and assist the Director, Defense Nuclear Agency (DNA), on matters related to nuclear weapons effects. The group reviews and evaluates long-range plans for the development and improvement of nuclear weapons effects data and advises the Director, DNA on the adequacy of current RDT&E programs. The group's scope covers recommendations on policy formulation, program planning, and suggested methods for accomplishing program objectives more effectively.

C. Period of Time:

The period of time necessary for the committee to carry out its purposes is indefinite, subject to the biennial approval of the Office of the Secretary of Defense.

D. Administration:

1. The group, through the Chairman, will report to the Director, DNA.

2. The Chairman of the group will be designated by the Director, DNA. The Chairman may or may not be a full-time, salaried government employee.

3. The group membership shall consist of approximately 16 members agreed upon by the Chairman and the Director, DNA, and appointed by the Secretary of Defense upon the recommendation of the Director, DNA. Each member shall be, by training and experience, an outstanding individual in fields of science associated with or related to nuclear weapons effects matters.

4. In addition to the 16 regular members described above, not more than 16 special members (non DoD personnel) will be selected on the basis of their preeminence in the fields of science, technology, engineering, and testing related to nuclear weapons and nuclear

weapons effects. Special members will serve a term not to exceed 2 years, as selected, may be reappointed in the same manner as regular members consistent with DoD policy, and will be called upon by theChairman to perform such special reviews and studies as may be required to provide timely advice to the Director, DNA.

E. Support:

During its tenure, the group will be responsive to and supported by the Director, DNA.

F. Duties:

In advising and assisting the Director, DNA, the group will convene as requested to:

1. Review and evaluate long-range plans for the development of nuclear weapons effects data and provide advice on the adequacy of elements of the DNA program.

2. Recommend new approaches and techniques for determining nuclear weapons effects data.

3. Render advisory assistance in the solution of specific problems which are brought to its attention.

G. Operating Cost:

The estimated annual operating costs are:

1. Dollars: $70,000.00

2. Man Years: One man year

H. Committee Meetings:

1.a. The Director, DNA will call meetings. Normally, meetings will be held twice annually at approximately six-month intervals. The agenda will be formulated jointly by the Director, DNA, and the Chairman of the group. Final approval authority for all agenda items rests with the Director, DNA.

b. Ad hoc sub-group, review group, and study members are drawn as required from the Group at large, on the bais of expertise and availability.

c. Subcommittees: Ad hoc sub-groups, quick reaction review groups, and study groups will be established for specific requirements in accordance with the basic mission of the SAGE. Such groups will report to the Chairman of the SAGE.

2. The Director, DNA shall designate, in writing, a full-time, salaried government employee who shall have the authority, in the absence of the Director, DNA, to adjourn any meeting of the group which is not considered to be in the public interest. No meetings will be held in the absence of the Director, DNA, or his designee.

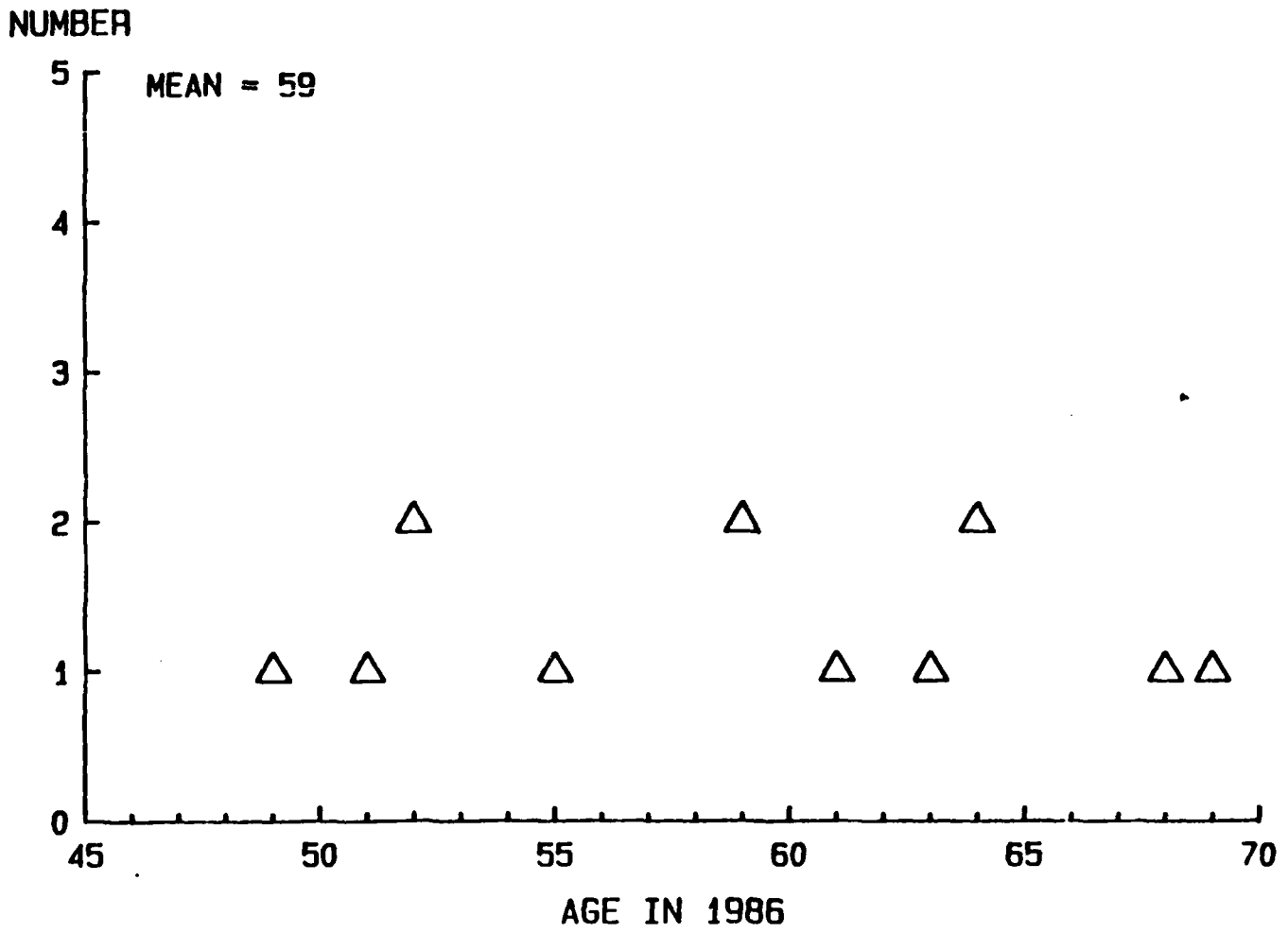
3. The Chairman of the group will certify the accuracy of the minutes for each meeting.

I. Termination:

The group will terminate 2 October 1986 or upon completion of its mission, whichever is earlier, or unless prior approval for its continuation is obtained.

Recent Meetings of SAGE

Dates	Topic of Discussion	Place
June 1982	Integrated battlefield. emphasis on U.S. Army forces	TRADOC Ft. Monroe. VA
November 1982	Survivability of space systems. including discussions of satellites. radio links between satellites and ground segments	HQ. AF Space Div Los Angeles. CA
May 1983	DNA pulsed power program. emphasis on direction the program is taking	Naval Research Lab Washington. DC
September 1983	Advise Director on impact of DNA's new mission role under DoD Instruction 4245.4. Acquisition of Nuclear-Survivable Systems	HQ. AF Systems Command Andrews AFB. MD
May 1984	DNA program in support of President's Strategic Defense Initiatives - Lethality and Target Hardness Activity	Natl Defense Univ Fort McNair Washington. DC
January 1985	Examine the joint BMO/DNA technology programs supporting basing of the Small ICBM	BMO Norton AFB. CA
September 1985	Review of DNA Underground Test Program	DoE NVOO Las Vegas. NV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